

WHAT IS CLAIMED IS:

1. An apparatus for press molding a molding material into a press-molded product comprising:

a mold comprising a first die and a second die, each of said dies having a molding surface facing with the other, said first die being fixed to a structure member of the apparatus and said second die being movable;

driving means for moving the second die toward and away from the first die;

heating means for heating said first and second dies;

detecting means for detecting a displacement of a part of the structure member; and

a controller for calculating a correction value for a moving distance of the second die based on the detected displacement and controlling the driving means so that the second die moves a distance in accordance with the correction value.

2. The apparatus of claim 1 further comprising a temperature controlling means, wherein the detecting means is supported by a supporting member and a temperature of the supporting member is maintained in a predetermined range by the temperature controlling means.

3. A method of press-molding a glass optical element by the use of a molding apparatus claimed in claim 1, said method comprising the step of:

supplying said mold with a glass preform preliminarily heated and softened and having a predetermined shape and press-molding the glass preform into said glass optical element.

4. An apparatus for press molding a molding material into a press-molded product comprising:

a mold comprising a first die and a second die, each of said dies having a molding surface facing with the other, said first die being fixed to a structure member of the apparatus and said second die being movable;

driving means for moving the second die toward and away from the first die;

heating means for heating said first and second dies;

temperature detecting means for detecting a temperature of a part of the structure member;

memory means for storing values of displacement in association with the temperatures of the part of the structure member; and

a controller for calculating a correction value for a moving distance of the second die based on the detected temperature and a value of displacement corresponding thereto, and for controlling the driving means so that the second die moves a distance in accordance with the correction value.

5. A method of press-molding a glass optical element by the use of a molding apparatus claimed in claim 4, said method comprising the step of:

supplying said mold with a glass preform preliminarily heated and softened and having a predetermined shape and press-molding the glass preform into said glass optical element.

6. A method for press-molding a heated and softened molding material into a press-molded product by use of an apparatus, said apparatus comprising a first die and a second die, each of said dies having a molding surface facing with the other, said first die being fixed to a structure member of the apparatus and said second die being movable, driving means for moving the second die toward and away from the first die, and heating means for heating said first and second dies, said method comprising:

supplying a material between the first die and the second die; and

press-molding the material with the first die and the second die;
wherein a displacement of a part of the structure member due to heat is detected;

a correction value for a moving distance of the second die is calculated based on the detected displacement; and

the driving means is controlled so that the second die moves a distance in accordance with the correction value.

7. The method of claim 6 wherein the displacement is detected prior to a press-molding in a press-molding cycle.

8. A method for press-molding a heated and softened molding material into a press-molded product by use of an apparatus, said apparatus comprising a first die and a second die, each of said dies having a molding surface facing with the other, said first die being fixed to a structure member of the apparatus and said second die being movable, driving means for moving the second die toward and away from the first die, and heating means for heating said first and second dies, said method comprising:

supplying a material between the first die and the second die, and

press-molding the material with the first die and the second die,

wherein a temperature of a part of the structure member is detected,

a correction value for a moving distance of the second die is obtained based on information including the detected temperature and a value of displacement corresponding to the detected temperature as stored in memory, and

the driving means is controlled so that the second die moves a distance in accordance with the correction value.